Full HD Multiple Streams Compact Fixed Dome IP Camera

User's Manual

Ver1.4

00P3NX103ZXSEA4

Table of Contents

1. Overview 2

1.1 Features 2

1.2 Package Contents 3

1.3 Dimensions 4

1.4 Installation (For Rugged Camera) 5

1.5 Connectors 6

2. Camera Cabling 7

2.1 Connect Ethernet Cable 7

2.1.1 Indoor Camera 7

2.1.2 Rugged Camera 7

3. System Requirements 9

4. Access Camera 10

5. Setup Video Resolution 13

6. Configuration Files Export/ Import 20

Appendix A: Technical Specifications 21

Appendix B: Delete the Existing DC Viewer 23

Appendix C: Setup Internet Security 24

1. Overview

The Full HD Multiple Streams Compact Fixed Dome IP Camera is capable of serving real-time streaming and makes image quality more smoothly. In addition to MJPEG real time streaming, this camera develops H.264 codec to apply for high resolution digital broadcast.

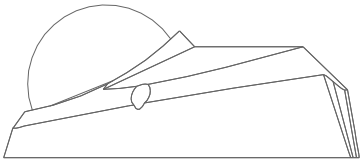
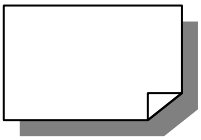
With compact and sophisticated mechanical design, the Full HD Multiple Streams Compact Fixed Dome IP Camera is easy installed and aesthetic.

1.1 Features

- Progressive Scan CMOS Sensor
- Dual Streams, Full HD real-time + D1 real-time
- H.264 and MJPEG compression
- Motion Detection
- Privacy Masks
- WDR
- Smart Picture Quality/3DNR
- Tampering Alarm
- Day/Night (ICR)
- Micro SD support
- Weatherproof Dongle Cable (Optional)
- Weatherproof (IP66 international)
- Micro SD support (Optional)
- Security Torx against tampering
- ONVIF Support

1.2 Package Contents

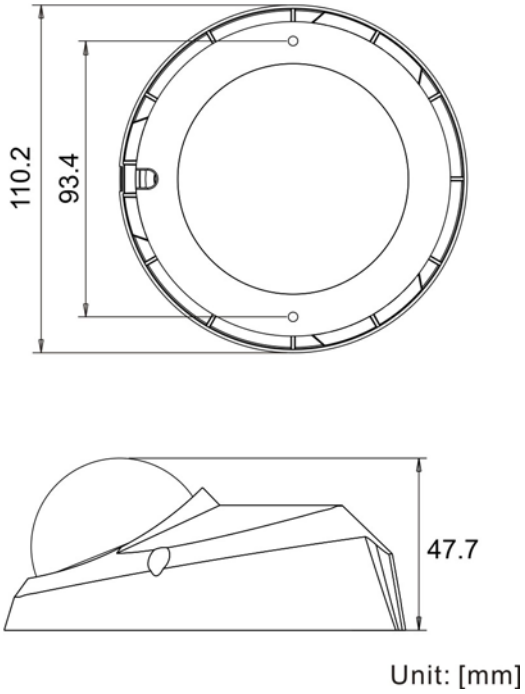
Please check the package contains the following items listed below.

 Indoor Camera/ Rugged Camera (with Cable)	Self-tapping screws (x3)	Plastic Anchors (x3)	Security Screw (x1)
Rubber Washer (x1, Casing) Rubber Washers (x3, Baseplate) (Rugged Camera only)	Security Torx	 Quick Guide	CD

NOTE: The type of the supplied self-tapping screws is mainly for softer substrate/material installation such as wood. For other installation environment such as cement wall, it is required to pre-drill and use plastic anchors before fastening the supplied self-tapping screw on the wall.

1.3 Dimensions

The IP Camera’s dimensions are shown below.



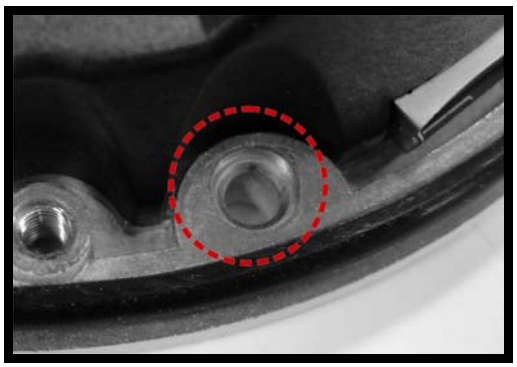
Unit: [mm]

1.4 Installation (For Rugged Camera)

For Rugged Camera, we suggest you to install the Camera as the following steps to make sure the Camera is well waterproof.

Step 1:

Put the Rubber Washers in both sides of the holes on the Bottom Plate of the Camera.



Step 2:

Aim the installing hole to the target installing position and fasten the screws to attach the Camera to the ceiling.

Step 3:

Refer to 1.5 Connectors and 2. Camera Cabling to connect the cable and adjust the lens.

Step 4:

Aim the arch parts on both Dome Cover and Bottom Plate to attach two parts firmly together. And then fasten the security screws on the Dome Cover to finish installing the Camera.

1.5 Connectors

The diagram below shows the IP Dome Camera's reset button and various adjusting screws. Definition for each will be given as follows.

Designation		Description
1	Reset Button	Restore to default setting; press the button with a proper tool
2	Lens	Rotate the lens right/left to adjust focus
3	Focus Fixed Screw	Loosen the screw to adjust the lens
4	Tilt Fixed Screw	Loosen the screw to adjust tilt angle
5	Micro SD Card Slot	For video recording storage

2. Camera Cabling

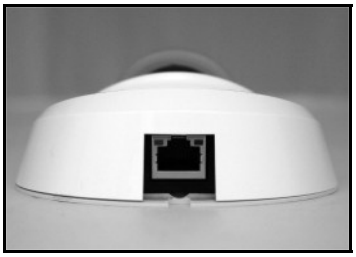
Please follow the instructions below to complete IP Camera connection.

2.1 Connect Ethernet Cable

Please follow the instructions below to connect Indoor/Rugged IP Dome Camera's Ethernet cable.

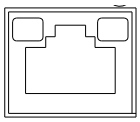
2.1.1 Indoor Camera

The Ethernet connector, which is located in the rear of the camera, is shown below:



PoE Connection

Connect the one end of the Ethernet cable to the network port on the camera, and the other end to Power Sourcing Equipment (PSE) like hubs or routers. Check the status of the link indicator and activity indicator LEDs; if the LEDs are unlit, please check the connections.

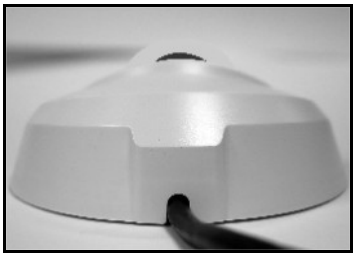


Green Link Light indicates good network connection.
Orange Activity Light flashes for network activity indication.

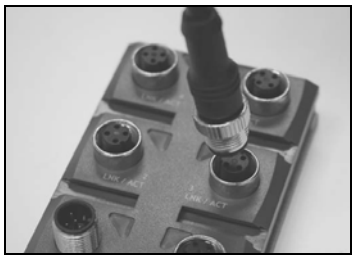
2.1.2 Rugged Camera

The Rugged IP Dome Camera supports two kinds of Ethernet cable; one is M12 D-Coded Cable, and the other is RJ-45 Dongle Cable.

M12 D-Coded Connection



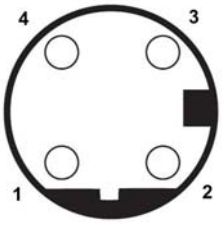
M12 D-Coded Cable



M12 PSE

- **M12 D-Coded Connection**
  Connect the Rugged IP Dome Camera's M12 D-coded cable to a M12 power source equipment (PSE) as shown above.

- **M12 D-Coded Connector's Pin Definition**



Pin 1: Rx+
Pin 2: Tx+
Pin 3: Rx−
Pin 4: Tx−

RJ-45 Dongle Cable Connection

RJ-45 Dongle

- **RJ-45 Dongle Cable Connection**
  Run the Ethernet cable through the Waterproof RJ-45 Screw-On Plug. Then connect one end of the Ethernet cable to the RJ-45 dongle, tightening the sealing nut of the Waterproof RJ-45 Screw-On Plug completely. Later on connect the other end of the Ethernet cable to Power Sourcing Equipment (PSE) like hubs or routers.

NOTE: Please use a PoE waterproof switch/hub so that the camera can work.

3. System Requirements

To perform the IP Camera via web browser, please ensure your PC is in good network connection, and meet system requirements as described below.

Items	System Requirement
Personal Computer	1. Intel® Pentium® M, 2.16 GHz or Intel® Core™2 Duo, 2.0 GHz 2. 2 GB RAM or more
Operating System	Windows VISTA/ Windows XP/ Windows 7
Web Browser	Microsoft Internet Explorer 6.0 or later Firefox Chrome Safari
Network Card	10Base-T (10 Mbps) or 100Base-TX (100 Mbps) operation
Viewer	ActiveX control plug-in for Microsoft IE

4. Access Camera

For initial access to the IP Camera, users can search the camera through the installer program: DeviceSearch.exe, which can be found in “DeviceSearch” folder in the supplied CD.

Device Search Software Setup

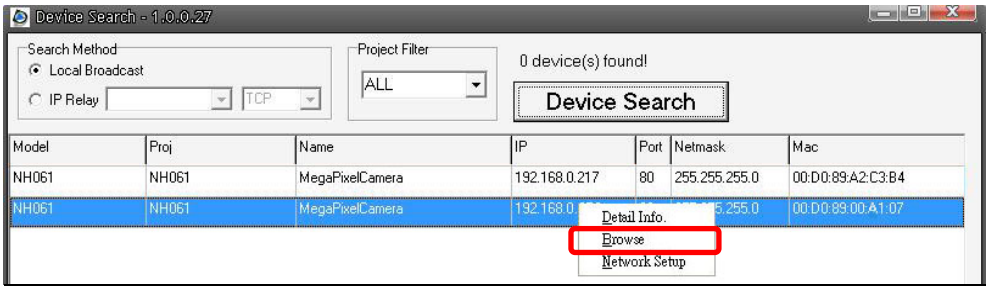
Step 1: Double click on the program Device Search.exe. After its window appears, click on the <Device Search> button on the top side.

Step 2: The security alert window will pop up. Click on <Unblock> to continue.

Device Search

Step 3: Click on <Device Search> again, and all the finding IP devices will be listed in the page. The IP Camera’s default IP address is: **192.168.0.250**.

Step 4: Double click or right click and select <Browse> to access the camera directly via web browser.



Step 5: Then the prompt window of request for entering default username and password will appear for logging in to the IP Camera.

The default login ID and password for the Administrator are:

Login ID	Password
Admin	1234

NOTE: ID and password are case sensitive.

NOTE: It is strongly advised that administrator’s password be altered for the security concerns. Refer to Full HD_Multiple Streams IP Camera Menu Tree for further details.

Additionally, users can change the IP Camera's network property, either DHCP or Static IP, directly in the device finding list. Refer to the following section for changing the IP Camera's network property.

Example of Changing IP Camera's Network Property

Users can directly change an IP Camera's network property, ex. from static IP to DHCP, in the finding device list. The way to change the IP Camera's network property is specified below:

Step 1: In the finding device list, click on the IP Camera that you would like to change its network property. On the selected item, right click and select "Network Setup." Meanwhile, record the IP Camera's MAC address, for future identification.

Step 2: The "Network Setup" page will come out. Select "DHCP," and press "Apply" button down the page.

Step 3: Click on <OK> on the Note of setting change. Wait for one minute to re-search the IP Camera.

Step 4: Click on the <Device Search> button to search all the devices. Then select the IP Camera with the correct MAC address. Double click on the IP Camera, and the login window will come out.

Step 5: Enter User name and Password to access the IP Camera.

Installing DC Viewer Software Online

For the initial access to the IP Camera, a client program, DC Viewer, will be automatically installed to your PC when connecting to the IP Camera.

If the Web browser doesn't allow DC Viewer installation, please check the Internet security settings or ActiveX controls and plug-ins settings (refer to Section: Setup Internet Security) to continue the process.

The Information Bar (just below the URL bar) may come out and ask for permission to install the ActiveX Control for displaying video in browser. Right click on the Information Bar and select <Install ActiveX Control…> to allow the installation.

The download procedure of DC Viewer software is specified as follows.

Step 1: In the DC Viewer installation window, click on <Next> to start installation.

Step 2: The status bar will show the installation progress. After the installation is completed, click on <Finish> to exit the installation process.

Step 3: Click on <Finish> to close the DC Viewer installation page.

Once the DC Viewer is successfully installed, the IP Camera's Home page will be able to correctly display as the figure below.

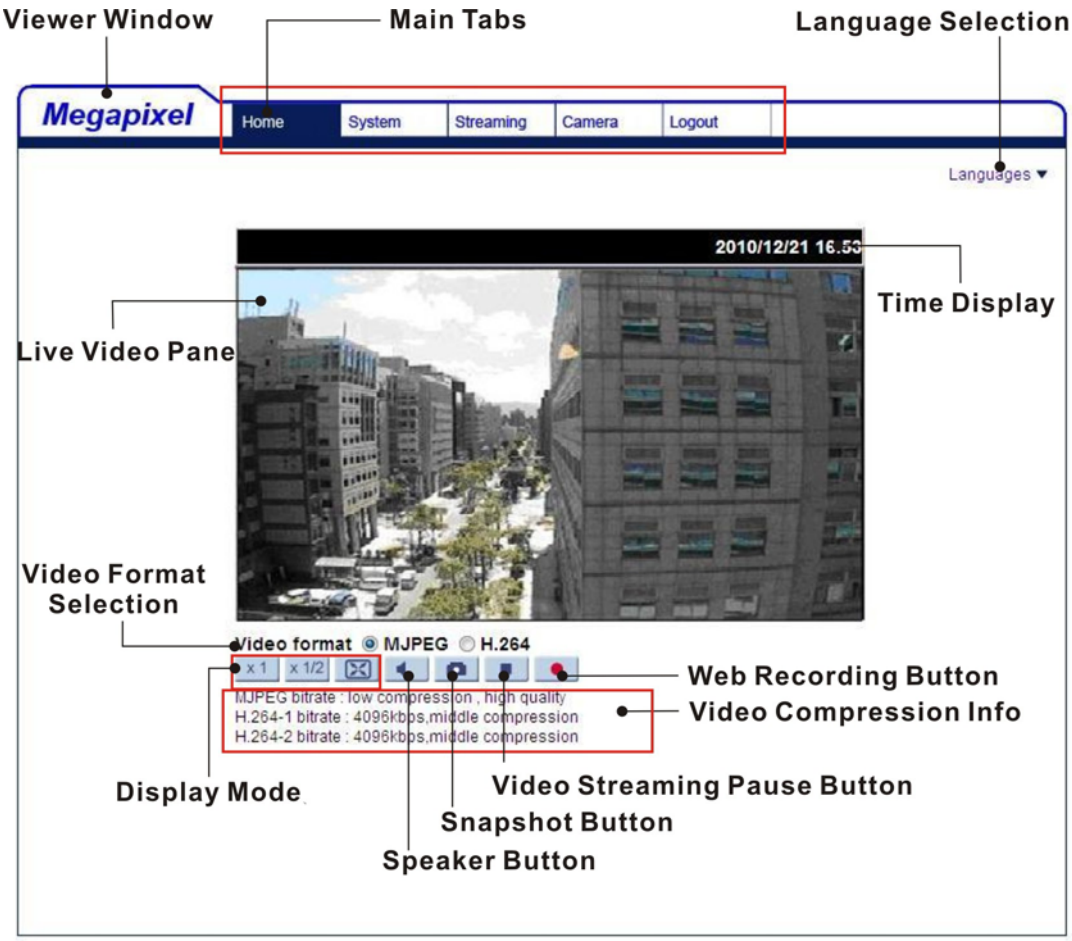


Image and Focus Adjustment

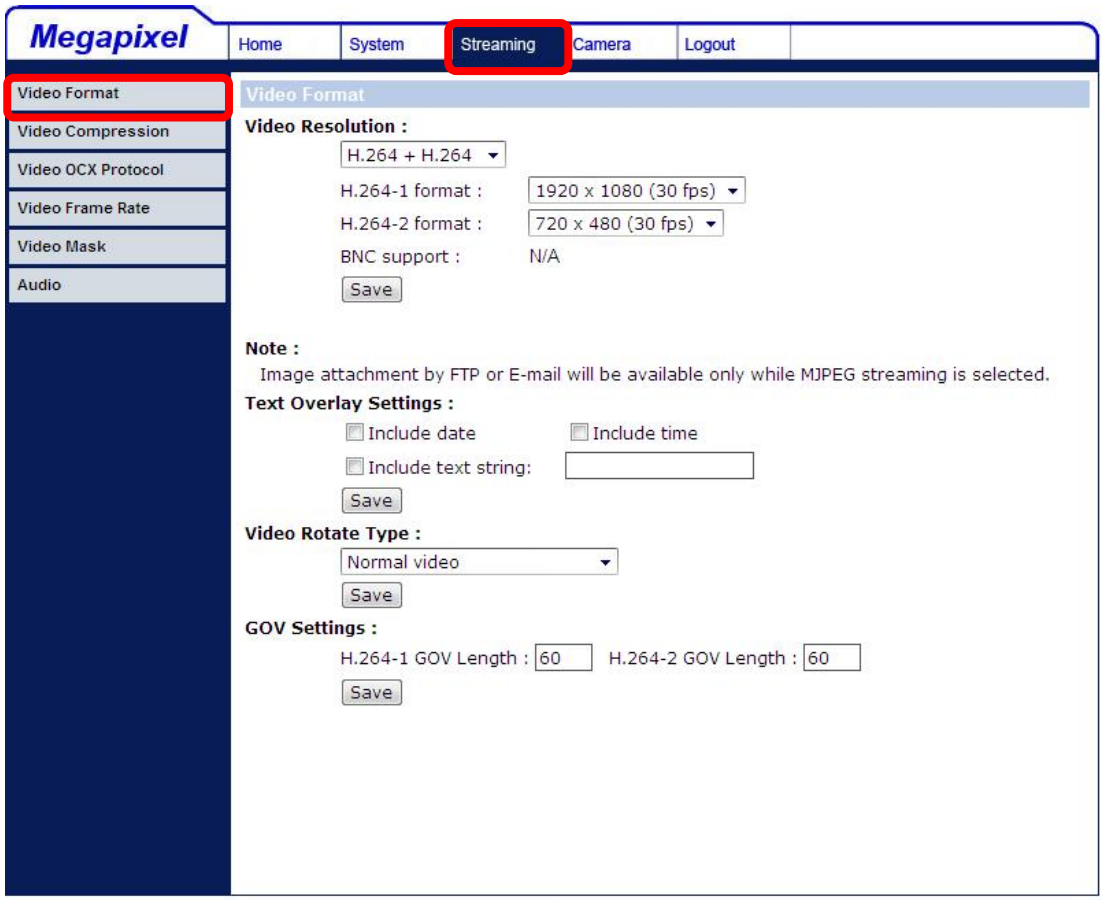
The image displays on the Home page when successfully accessing to the IP Camera. Adjust zoom and focus as necessary to produce a clear image.

Note: Please refer to Full HD Multiple Streams IP Camera Menu Tree for more button function detail.

5. Setup Video Resolution

Users can setup Video Resolution on Video Format page of the user-friendly browser-based configuration interface.

Video Format can be found under this path: **Streaming> Video Format**.



2M Model

- **Video Format**

  Under Video Resolution section, select a preferred resolution setting. The available Video Resolution for MJPEG & H.264 format includes:

H.264 + H.264		
H.264-1	**H.264-2**	**BNC SUPPORT**
1920 x 1080 (15fps)	1280 x 720 (30fps)*	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1280 x 1024 (30fps)	1280 x 1024 (15fps)	-
	1280 x 720 (15fps)	-
	1024 x 768 (15fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1280 x 720 (30fps)	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1024 x 768 (30fps)	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
800 x 600 (30fps)	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-

720 x 480 (30fps)	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
640 x 480 (30fps)	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
352 x 240 (30fps)	352 x 240 (30fps)	-
H.264 + MJPEG		
H.264	**MJPEG**	**BNC SUPPORT**
1920 x 1080 (15fps)	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1280 x 1024 (30fps)	1280 x 1024 (15fps)	-
	1280 x 720 (15fps)	-
	1024 x 768 (15fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1280 x 720 (30fps)	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1024 x 768 (30fps)	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
800 x 600 (30fps)	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-

720 x 480 (30fps)	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
640 x 480 (30fps)	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
352 x 240 (30fps)	352 x 240 (30fps)	-

MJPEG Only	
MJPEG	**BNC SUPPORT**
1920 x 1080 (15fps)	-
1280 x 1024 (30fps)	-
1280 x 720 (30fps)	-
1024 x 768 (30fps)	-
800 x 600 (30fps)	-
720 x 480 (30fps)	-
640 x 480 (30fps)	-
352 x 240 (30fps)	-

H.264 Only	
H.264	**BNC SUPPORT**
1920 x 1080 (15fps)	-
1280 x 1024 (30fps)	-
1280 x 720 (30fps)	-
1024 x 768 (30fps)	-
800 x 600 (30fps)	-
720 x 480 (30fps)	-
640 x 480 (30fps)	-
352 x 240 (30fps)	-

(*) Default

Click on <Save> to confirm the setting.

2M Real-time Model

- **Video Format**

  Under Video Resolution section, select a preferred resolution setting. The available Video Resolution for MJPEG & H.264 format includes:

H.264 + H.264		
H.264-1	**H.264-2**	**BNC SUPPORT**
1920 x 1080 (30fps)	720 x 480 (30fps)*	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1920 x 1080 (15fps)	1920 x 1080 (15fps)	-
	1280 x 1024 (30fps)	-
	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
1280 x 1024 (30fps)	1280 x 1024 (15fps)	-
	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1280 x 720 (30fps)	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1024 x 768 (30fps)	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
800 x 600 (30fps)	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-

720 x 480 (30fps)	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
640 x 480 (30fps)	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
352 x 240 (30fps)	352 x 240 (30fps)	-
H.264 + MJPEG		
H.264	**MJPEG**	**BNC SUPPORT**
1920 x 1080 (30fps)	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1920 x 1080 (15fps)	1920 x 1080 (15fps)	-
	1280 x 1024 (30fps)	-
	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
1280 x 1024 (30fps)	1280 x 1024 (15fps)	-
	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1280 x 720 (30fps)	1280 x 720 (30fps)	-
	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
1024 x 768 (30fps)	1024 x 768 (30fps)	-
	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-

800 x 600 (30fps)	800 x 600 (30fps)	-
	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
720 x 480 (30fps)	720 x 480 (30fps)	-
	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
640 x 480 (30fps)	640 x 480 (30fps)	-
	352 x 240 (30fps)	-
352 x 240 (30fps)	352 x 240 (30fps)	-

MJPEG Only	
MJPEG	**BNC SUPPORT**
1920 x 1080 (30fps)	-
1280 x 1024 (30fps)	-
1280 x 720 (30fps)	-
1024 x 768 (30fps)	-
800 x 600 (30fps)	-
720 x 480 (30fps)	-
640 x 480 (30fps)	-
352 x 240 (30fps)	-

H.264 Only	
H.264	**BNC SUPPORT**
1920 x 1080 (30fps)	-
1280 x 1024 (30fps)	-
1280 x 720 (30fps)	-
1024 x 768 (30fps)	-
800 x 600 (30fps)	-
720 x 480 (30fps)	-
640 x 480 (30fps)	-
352 x 240 (30fps)	-

(*) Default

Click on <Save> to confirm the setting.

6. Configuration Files Export/ Import

To export/ import configuration files, users can access the Maintenance page on the user-friendly browser-based configuration interface.

The Maintenance setting can be found under this path: **System> Maintenance**.

Users can export configuration files to a specified location and retrieve data by uploading an existing configuration file to the IP Camera.

Export

Users can save the system settings by exporting the configuration file (.bin) to a specified location for future use. Click on the <Export> button, and the popup File Download window will come out. Click on <Save> and specify a desired location for saving the configuration file.

Upload

To copy an existing configuration file to the IP Camera, please first click on <Browse> to select the configuration file, and then click on the <Upload> button for uploading.

Appendix A: Technical Specifications

Camera		2M	2M Real-time
Image Sensor		1/2.7” Progressive CMOS	
Effective Pixels		1920(H) x 1080(V)	
Minimum Illumination	Color	0.1 lux @ F1.5	
Shutter Speed		1~ 1/10000 sec.	
White Balance		Manual / AWB/ ATW	
Lens			
Fixed Lens		F 1.5 / f = 4.0 mm	
FOV		78°	
Operation			
Video Compression		H.264/ MJPEG	
Video Streaming		Simultaneous H.264 1080p (13/15 fps) + MJPEG 720p (25/30 fps)	Simultaneous H.264 1080p (25/30 fps) + MJPEG D1 (25/30 fps)
		Simultaneous H.264 1080p (13/15 fps) + H.264 720p (25/30 fps)	Simultaneous H.264 1080p (25/30 fps) + H.264 D1 (25/30 fps)
Resolution	H.264	Full HD 1080p/ SXGA/ HD720p/ XGA/ SVGA/ D1/ VGA/ CIF	
	MJPEG		
Image Setting	Brightness	Manual	
	Exposure	Auto/Manual	
	Sharpness	Manual	
	Contrast	Manual	
	White Balance	Auto/Manual	
	Saturation	Manual	
	Hue	Manual	
	Backlight Compensation	On/Off	
	Digital Zoom	Support	
	WDR	On/Off	
	3D Noise Reduction	On/Off	
	Motion detection	On/Off	
	Privacy Mask	On/Off	
	Privacy Mask Type	Color	
	Tampering Alarm	On/Off	
Audio	One-way Audio*	Mic in	

	Compression	G.711/G.726
Event Notification		HTTP, FTP, SMTP
Multiple Languages		English, French, German, Italian, Korean, Simplified Chinese, Traditional Chinese, Russian,
Network		
Interface		10/100Mbps Ethernet (RJ-45)
Protocol		IPv4/ v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP,FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS, and ONVIF
Password Levels		User and Administrator
Security		HTTPS, IP Filter, IEEE 802.1X
Internet Browser		Internet Explorer (6.0+), Chrome, Firefox, Safari
User Account		20
Mechanical		
Lens Mounting		M12 Board Lens
Connectors	Ethernet	RJ-45
	Micro SD*	Micro SDHC 32GB support
General		
Operating Temperature		-10°C ~ 50°C (14°F~122°F)
		Humidity: 10% to 90%, no condensation
Power Source		PoE
Power Consumption		3.5 W
Weatherproof	Rugged Camera	IP66
Regulatory		CE, FCC, RoHS Compliant
Dimension		⌀ 110.2 x 47.7 mm (⌀ 4.3 x 1.9 in.)
Weight		180g (0.40 lb)

(*) Optional

Appendix B: Delete the Existing DC Viewer

For users who have installed the DC Viewer in the PC previously, please first remove the existing DC Viewer from the PC before accessing to the IP Camera.

Deleting the DC Viewer

In the Windows <Start Menu>, activate <Control Panel>, and then double click on <Add or Remove Programs>. In the <Currently installed programs> list, select <DCViewer> and click on the button <Remove> to uninstall the existing DC Viewer.

Deleting Temporary Internet Files

To improve browser performance, it is suggested to clean up the all the files in the Temporary Internet Files.

The procedure is as follows:

Step 1: Click on the <Tools> tab on the menu bar and select <Internet Options>.

Step 2: Click on the <Delete> button under <Browsing history> section. Then click on the <Delete Files> button under the <Temporary Internet files> section.

Step 3: A confirmation window will pop up. Click on <Yes> to start deleting the files.

Appendix C: Setup Internet Security

If ActiveX control installation is blocked, please either set Internet security level to default or change ActiveX controls and plug-ins settings.

Internet Security Level: Default

Step 1: Start the Internet Explorer (IE).

Step 2: Click on the <Tools> tab on the menu bar and select <Internet Options>.

Step 3: Click on the <Security> tab, and select <Internet> zone.

Step 4: Down the page, click on the <Default Level> button and click on <OK> to confirm the setting. Close the browser window, and restart a new one later to access the IP Camera.

ActiveX Controls and Plug-ins Settings

Step 1: Repeat **Steps 1~3** of the previous section above.

Step 2: Down the page, click on the <Custom Level> button to change ActiveX controls and plug-ins settings. The Security Settings window will pop up.

Step 3: Under <ActiveX controls and plug-ins>, set **ALL** items (as listed below) to <Enable> or <Prompt>. Please note that the items vary by IE version.

ActiveX controls and plug-ins settings:

1. Allow previously unused ActiveX controls to run without prompt.
2. Allow Scriptlets.
3. Automatic prompting for ActiveX controls.
4. Binary and script behaviors.
5. Display video and animation on a webpage that does not use external media player.
6. Download signed ActiveX controls.
7. Download unsigned ActiveX controls.
8. Initialize and script ActiveX controls not marked as safe for scripting.
9. Run ActiveX controls and plug-ins.
10. Script ActiveX controls marked safe for scripting.

Step 4: Click on <OK> to accept the settings and close the Security Settings window.

Step 5: Click on <OK> to close the Internet Options screen.

Step 6: Close the browser window, and restart a new one later to access the IP Camera.